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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/691,262

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Eric M. Peterson

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INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

KEEFER, MICHAEL E

ART UNIT

PAPER NUMBER

2154

NOTIFICATION DATE

DELIVERY MODE

09/23/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/691,262	Applicant(s) PETERSON ET AL.	
	Examiner MICHAEL E. KEEFER	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the RCE and Amendment filed 7/1/2008.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-3, 6-8, 12-13, and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaidya (US 6279113) in view of Skonnard ("SOAP: The Simple Object Access Protocol").

Regarding **claim 1**, Vaidya discloses:

A network usage analyzer, comprising:

a network query client residing in a first network; and (central data repository 12, in network 11)

a network query server residing in a second network protected by a firewall, the network query server operable to collect usage data associated with the second network and respond to at least one query regarding usage of the second network from the network query client, wherein the query is formatted to enable transmission using the HTTP as the underlying transport mechanism.

(Data collector 10 in network 24, as stated in the first paragraph of the detailed description, data collectors can be firewalls, in addition to their data collector functionality. Data repository 12 polls the data collectors to obtain network security data. (Col. 5 lines 27-29)

Vaidya discloses all the limitations of claims 1, 3, 7-8, and 13 except for using the HTTP to send queries, the firewall explicitly not being reconfigured, and that the protocol used to poll the data collectors is SOAP.

The general concept of using SOAP to provide application functionality between networks with firewalls and avoiding reconfiguring them is well known in the art as taught by Skonnard. ("most firewalls block non-HTTP requests. SOAP gets around these limitations to provide intraprocess communication across machines." Page 1, Paragraph 1)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vaidya with the general concept of using SOAP to provide application functionality between networks with firewalls and avoiding reconfiguring them as taught by Skonnard in order to open as few ports in the firewalls as possible.

Regarding **claim 2 as applied to claim 1**, Vaidya discloses:

wherein the network query client and network query server are operable to communicate using a common protocol. (Since there are no protocol translators, in Fig. 1, the data collectors and data repository must inherently be using a common protocol to communicate.)

Regarding **claim 4 as applied to claim 1**, Vaidya discloses:

wherein the network query server is operable to receive a query from the network query client related to how resources in the second network are used. (the network security data that is polled for indicates whether resources are being used to attack a system. (Col. 5))

Regarding **claim 5 as applied to claim 1**, Vaidya discloses:

wherein the network query server is operable to collect data related to how resources in the second network are used. (the network security data that is returned indicates whether resources are being used to attack a system. The data collectors collect information regarding packet traffic. (Col. 5))

Regarding **claim 11 as applied to claim 6**, Vaidya discloses:

receiving, by the network query server, network configuration information. (Col. 5 lines 66-67 discloses network configuration data being sent (thus inherently received) to the data collectors.

Regarding **claims 16 as applied to claims 1, 6, and 12**, Vaidya discloses:

Transforming collected information into business information. (Col. 5 lines 50-51 discloses generating reports regarding intrusion detection history, which is business information.)

Regarding **claims 17 as applied to claims 1 and 12**, Vaidya discloses:

Network usage information based off of a time of day. (Vaidya polls the data collectors for new information, thus the network information retrieved is based upon the time of day at which the polling takes place.)

Claims 6, 12, and 18-20 are rejected for similar reasons as the claims above.

4. Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaidya and Skonnard as applied to claims 1 and 12 above, and further in view of Korematsu (US 5978478).

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Vaidya and Skonnard teach all the limitations of claim 9 except for the repository authenticating with the data collectors.

The general concept of authenticating between a client and server using a request and acknowledgement is well known in the art as taught by Korematsu. (Col. 1 lines 46-59 teach sending a authenticate request and an authenticate acknowledgement.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vaidya and Skonnard with the general concept of authenticating between a client and server using a request and acknowledgement as taught by Korematsu in order to make sure that possible network attack information is not passed to non-trusted entities.

Claim 14 is rejected based upon similar reasoning as the claim above.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vaidya, Skonnard and Korematsu as applied to claims 6 and 9 above, and further in view of Jackson et al. (US 2002/0049909).

Vaidya, Skonnard and Korematsu teach all the limitations of claim 10 except for authenticating periodically.

The general concept of periodically renewing authentication is well known in the art as taught by Jackson. ([0085] teaches verficiation of authentication at periodic or continual times.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Vaidya, Skonnard and Korematsu with the general concept of

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periodically renewing authentication as taught by Jackson in order to further increase the security of the authenticated connection.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vaidya and Skonnard as applied to claim 12 above, and further in view of Smith (US 7137139).

Vaidya and Skonnard teach all the limitations of claim 15 except for network configuration information being sent from the data collectors to the depository.

The general concept of sending network configuration data from elements in a network to a depository is well known in the art as taught by Smith. (Abstract, Configuration data for the network element is received and checked against previously stored configuration data.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vaidya and Skonnard and the general concept of sending network configuration data from elements in a network to a depository as taught by Smith in order to make sure that the configuration of the data collectors has not been altered by an attack.

Response to Arguments

7. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that Viadya teaches away from modifying Vaidya with Skonnard because of various security concerns with SOAP and confidential information.

However, Skonnard provides various ways of ensuring security while skill maintaining the use of HTTP port 80 for use for web services. For instance, page

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2 “SOAP makes it possible for system administrators to configure firewalls to selectively block out SOAP requests”, this idea is further discussed on page 6 under the heading of “Firewall Filtering”. Additionally, on page 9, Skonnard specifically discusses how to secure SOAP connections (see the SOAP Security section). Therefore, one of ordinary skill in the art would see that SOAP could be implemented to simplify the number of ports on the firewall that must be open while still maintaining the security of the “usage data”.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL E. KEEFER whose telephone number is (571)270-1591. The examiner can normally be reached on Monday through Friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MEK 9/13/2008

/Joseph E. Avellino/
Primary Examiner, Art Unit 2146